
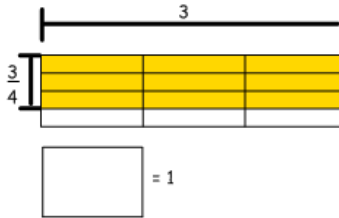






Standards	Lessons	Teacher Notes																																		
Standards marked with RED keys are priority standards.																																				
<div><div></div><div>5.NF.3 – Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.</div></div> <div>Learning Target: I can interpret a fraction as division of the numerator by the denominator. I can use fraction models or equations to solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers.</div>	<div><div>★ ▶</div><div>To address KCAS, the following should be included in instruction: Math Investigations: Unit 4:<ul style="list-style-type: none">Sessions 4A.1-4A.10Unit 6:<ul style="list-style-type: none">Sessions 1.7-1.10 GAP LESSONS</div></div>	<div>KCAS Note: KCAS Note 5.NF.3-Strategies must include using visual fraction models and equations to represent problems. KCAS Note 5.NF -5.OA.1 can be addressed through this standard by the placement of parentheses, brackets, and braces when writing equations to represent problems. KCAS Note 5.NF.4b- Rectangular areas such as:</div> <div></div>																																		
<div><div></div><div>5.NF.4 – Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.</div></div> <div>a. Interpret the product $(a/b) \times q$ as a part of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. <i>For example, use a visual fraction model to show $(2/3) \times 4 = 8/3$, and create a story context for this equation. Do the same with $(2/3) \times (4/5) = 8/15$. (In general, $(a/b) \times (c/d) = ac/bd$.)</i> b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.</div> <div>Learning Targets: I can compare the size of the product of two fractions to the product of two other fractions based upon the size of the unit fraction. I can use a visual model to represent multiplication of a fraction or a whole number by a fraction. I can create a story context for a situation involving multiplication of a fraction or a whole number by a fraction. I can represent fraction products as rectangular areas.</div>	<div><div>★ ▶</div><div><table><tr><th colspan="2">Formative Assessment Opportunities</th></tr><tr><td>5.NF.3</td><td></td></tr><tr><td>5.NF.4</td><td></td></tr><tr><td>5.NF.5</td><td></td></tr><tr><td>5.NF.6</td><td></td></tr><tr><td>5.NF.7</td><td></td></tr><tr><th colspan="2">Spiral Review</th></tr><tr><td>5.NBT.5</td><td></td></tr><tr><td>5.NBT.6</td><td></td></tr><tr><td>5.MD.3</td><td></td></tr><tr><td>5.MD.3a</td><td></td></tr><tr><td>5.MD.3b</td><td></td></tr><tr><td>5.MD.4</td><td></td></tr><tr><td>5.MD.5</td><td></td></tr><tr><td>5.MD.5a</td><td></td></tr><tr><td>5.MD.5b</td><td></td></tr><tr><td>5.MD.5c</td><td></td></tr></table></div></div>	Formative Assessment Opportunities		5.NF.3		5.NF.4		5.NF.5		5.NF.6		5.NF.7		Spiral Review		5.NBT.5		5.NBT.6		5.MD.3		5.MD.3a		5.MD.3b		5.MD.4		5.MD.5		5.MD.5a		5.MD.5b		5.MD.5c		
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<p> 5.NF.5 – Interpret multiplication as scaling (resizing), by:</p> <p>a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.</p> <p>b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1.</p> <p>Learning Targets: I can compare the size of the product of the size of one factor based on the size of the other factor without multiplying the factors. I can multiply a whole number by a fraction and compare the size of the product to the original whole number.</p>	<p>★ ▶</p> <p><u>Vocabulary:</u> Fraction, numerator, denominator, mixed number, visual fraction model, equation, product, equivalent, sequence of operations, story context, area, rectangle length, tiling, rectangular area, scale, resize, quotient, multiplication, division</p> <p>http://www.amathsdictionaryforkids.com/</p>	<p>KCAS Note 5NF.5b: Students need to be able to explain why: $2 \times 3/2 = 3$ $2 \times 1/2 = 1$ $2 \times 2/2 = 2$</p>
<p> 5.NF.6 – Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.</p> <p>Learning Target: I can use visual fraction models or equations to solve real world problems involving multiplication of fractions and mixed numbers.</p>	<p>★ ▶</p>	

<p> 5.NF.7- Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.</p> <p>a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. <i>For example, create a story context for $(1/3) \div 4$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$.</i></p> <p>b. Interpret division of a whole number by a unit fraction, and compute such quotients. <i>For example, create a story context for $4 \div (1/5)$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain the $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$.</i></p> <p>c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. <i>For example, how much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $1/3$-cup servings are in 2 cups of raisins?</i></p> <p>Learning Targets:</p> <p>I can divide a unit fraction by a non-zero whole number using a visual model and relate it as the inverse of multiplication.</p> <p>I can divide a whole number by a unit fraction using a visual model and relate it as the inverse of multiplication.</p> <p>I can solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions.</p>	<p>★</p> <p>▶</p>		
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